

IN THE SPECIFICATION

Please delete the paragraph previously inserted between paragraphs 19 and 20, and replace with the following replacement paragraph.

~~Figure 17 illustrates~~ Figure 14 illustrates a filter positioned in a collimator.

Please delete paragraph number 32 and replace with the following replacement paragraph:

Figure 4 illustrates an x-ray tube 14 in which a kVp (peak kiloelectronvolt) is varied as the tube is moved in a Z direction. In one embodiment, method 60 includes using x-ray beam 16 including a spatially variant x-ray energy distribution in a Z direction. The spatially variant x-ray energy distribution in the Z direction is generated using an obtuse angle off an x-ray source target that includes a highly varying x-ray self absorption by the x-ray source target. In one embodiment, varying the x-ray source 14 in the Z direction produces images of object 22 in which each detector row corresponds to attenuation data from a different x-ray subspectrum and from which a plurality of spectral information about object 22 can be obtained. As used herein, subspectra and subspectrum can mean the full x-ray spectrum or any subpart thereof. Determining spectral information means taking a difference between two or more x-ray attenuation measurements collected with a plurality of x-ray subspectra. For example, the x-ray source is constructed such that when energized the x-ray source emits x-rays such that there is a spatially variant x-ray spectral distribution in the Z direction and a first detector row receives x-rays of a different spectrum than received at a second detector row. The data samples thus received from the first and second detector rows are then analyzed to determine the presence of a particular analyte. As used herein analyte refers to a specific material in an object such as a patient that one desires to identify such as bone, calcium, iodine or other contrast agent, and other types of agents or dyes that provide functional information and/or anatomical information.